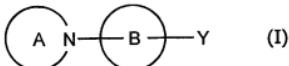


AMENDMENTS TO THE CLAIMS

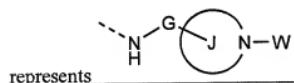
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A compound represented by formula (I):



wherein ring A represents a nitrogen-containing heterocyclic group an azepane ring which may have a substituent(s); ring B represents a homoeyelic group which may have a substituent(s) or a heteroeyelic group a pyrimidine ring which may have a substituent(s); and Y

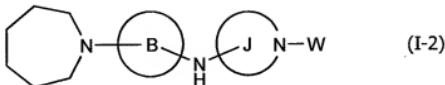


wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s) or a heterocyclic group which may have a substituent(s) a hydrocarbon group which may have a substituent(s), a heteroeyelic group which may have a substituent(s), an amino group which may be protected, a hydroxyl group which may be protected or a mercapto group which may be protected,

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

2.-5 (canceled).

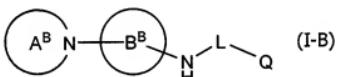
6. (currently amended): The compound according to claim 1, which is represented by formula (I-2):



wherein all symbols have the same meanings as those described in claim 1-~~or~~4.

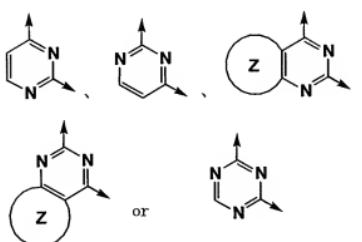
7. (canceled).

8. (currently amended): A compound represented by formula (I-B):



wherein ring A^B represents a 7 to 15 membered monoecyclic, bicyclic or tricyclic heteroecyclic group which is saturated or contains one double bond and which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom an azepane ring:

ring B^B represents:



wherein ring Z represents a C5-10 monocyclic or bicyclic carbocyclic group, or a 5- to 10-membered monocyclic or bicyclic heterocyclic group which may contain 1 or 2 nitrogen atoms, one oxygen atom and/or one sulfur atom; the upward arrow represents a binding position to ring A^B; and the right-downward arrow represents a binding position to the nitrogen atom bound to L;

L represents (1) a bond, (2) C1-8 alkylene, C2-8 alkenylene or C2-8 alkynylene, wherein the alkylene, alkenylene and alkynylene each may be substituted with 1 to 5 of R¹⁰, or (3) a C3-8 carbocyclic group which may be substituted with R³;

O represents (1) NR¹R² wherein R¹ and R² each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with 1 to 5 of R¹⁰, (iii) a C3-8 carbocyclic group which may be substituted with 1 to 5 of R³, or (iv) a 5- to 15-membered heterocyclic group which contains 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R³, or (2) ring C;

ring C represents a 4- to 15-membered heterocyclic group which contains at least one nitrogen atom and may further contain 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R³;

plural R³'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R¹⁰, (2) oxo, or (3) R¹⁰;

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10) CONR¹⁴R¹⁵, (11) SO₂R¹², (12) SOR²², (13) SO₂NR²⁴R²⁵, (14) NR¹⁶SO₂R¹², (15) B(OH)₂, (16) SR¹¹, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

R¹¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl,
wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen, NR¹⁴R¹⁵, OR²¹,

SR²¹, COOR¹³, or ring D, or (iii) ring D;

R¹², R¹³, R¹⁴, R¹⁵ and R¹⁶ each independently represents (i) hydrogen, (ii) C1-15
alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;

ring D represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5-
to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4
nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom; and

ring D may be substituted with 1 to 5 of the groups selected from the following (1) to
(22):

(1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl or
alkynyl may be substituted with 1 to 5 of OR²¹, OCOR²², OCOOR²³, NR²⁴R²⁵, NR²⁶COR²²,
NR²⁶CONR²⁴R²⁵, NR²⁶COOR²³, COOR²³, COR²², CONR²⁴R²⁵, SO₂R²², SOR²², SO₂NR²⁴R²⁵,
NR²⁶SO₂R²², B(OH)₂, SR²¹, halogen, nitro or cyano, (2) oxo, (3) OR²¹, (4) OCOR²², (5)
OCOOR²³, (6) NR²⁴R²⁵, (7) NR²⁶COR²², (8) NR²⁶CONR²⁴R²⁵, (9) NR²⁶COOR²³, (10) COOR²³,
(11) COR²², (12) CONR²⁴R²⁵, (13) SO₂R²², (14) SOR²², (15) SO₂NR²⁴R²⁵, (16) NR²⁶SO₂R²²,
(17) B(OH)₂, (18) SR²¹, (19) halogen, (20) nitro, (21) cyano or (22) ring E;

R²¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which
may be substituted with COR²², NR²⁴R²⁵ or ring E, or (iii) ring E;

R²², R²³, R²⁴, R²⁵ and R²⁶ each independently represents (i) hydrogen, (ii) C1-15
alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring E, or (iii) ring E;

ring E represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4

nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom, and

ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxy, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring A^A may be substituted with 1-5 of R^a;

ring B^A may be substituted with 1-5 of R^b;

R^a and R^b each independently represents a group which has the same meaning as the group represented by R³

ring A^B may be substituted with 1 to 5 of R^a; ring B^B may be substituted with 1 to 5 of R^b; and R^a, R^b and other symbols have the same meanings as those described in claim 7, and

wherein the following compounds (1) to (7) are excluded:

- (1) N-[4-(hexahydro-1H-azepin-1-yl)thieno[3,2-d]pyrimidin-2-yl]-1,4-butandiamine dihydrochloride,
- (2) 7-[4-[4,6-bis(hexahydro-1H-azepin-1-yl)-1,3,5-triazin-2-yl]amino-2H-1,2,3-triazol-2-yl]-3-phenyl-2H-1-benzopyran-2-one,
- (3) 4-ethoxy-6-(hexahydro-1H-azepin-1-yl)-N-[3-(4-morpholinyl)propyl]-1,3,5-triazin-2-amine,
- (4) 4-(hexahydro-1H-azepin-1-yl)-6-methyl-N-[3-(4-morpholinyl)propyl]-1,3,5-triazin-2-amine,
- (5) 4-chloro-6-(hexahydro-1H-azepin-1-yl)-N-[2-(4-morpholinyl)ethyl]-1,3,5-triazin-2-amine,

(6) 4-(hexahydro-1H-azepin-1-yl)-6-methoxy-N-[3-(4-morpholinyl)propyl]-1,3,5-triazin-2-amine, and

(7) N-[4-(hexahydro-1H-azepin-1-yl)thieno[3,2-d]pyrimidin-2-yl]-1,4-butanediamine, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

9. (Currently amended) The compound according to any one of claims 1, 7 and 8,

which is

(1) N-(4-azepan-1-ylpyrimidin-2-yl)ethane-1,2-diamine,

(2) N¹-(4-azepan-1-ylpyrimidin-2-yl)-N²,N²-dimethylethane-1,2-diamine,

(3) 4-azepan-1-yl-N-((3S)-1-cyclohexylpyrrolidin-3-yl)pyrimidin-2-amine,

(4) 4-azepan-1-yl-N-((3S)-1-benzylpyrrolidin-3-yl)pyrimidin-2-amine,

(5) 4-azepan-1-yl-N-((3S)-1-(2-ethylbutyl)piperidin-3-yl)pyrimidin-2-amine,

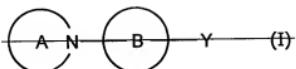
(6) 4-azepan-1-yl-N-[(3S)-1-cyclohexylpiperidin-3-yl]pyrimidin-2-amine,

(7) 4-azepan-1-yl-N-[(3S)-1-tetrahydro-2H-pyran-4-ylpiperidin-3-yl]pyrimidin-2-amine,

(8) 4-(3S)-3-[(4-azepan-1-ylpyrimidin-2-yl)amino]piperidin-1-ylcyclohexanol, or

(9) (3S)-N-(4-azepan-1-ylpyrimidin-2-yl)-1'-(cyclohexylcarbonyl)-1,4'-bipiperidin-3-amine.

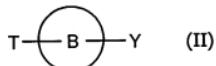
10. (currently amended): A pharmaceutical composition, which comprises a the compound represented by formula (I):



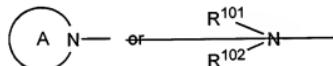
wherein all symbols have the same meanings as those described in accordance to claim 1, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, and a pharmaceutically acceptable carrier.

11.-16 (canceled).

17. (currently amended): A CXCR4 regulating agent antagonist, which comprises a compound represented by formula (II):



wherein T represents



wherein ring A represents an azepane ring which may have a substituent(s); ring B represents a pyrimidine ring which may have a substituent(s); and Y represents

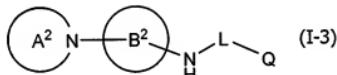


wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s) or a heterocyclic group which may have a substituent(s)

wherein R¹⁰¹ and R¹⁰² each independently represents hydrogen or a hydrocarbon group which may have a substituent(s); ring A has the same meaning as that described in claim 1; and other symbols have the same meanings as those described in claim 1,
or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

18. (canceled).

19. (currently amended): A CXCR4 regulating agentantagonist, which comprises a compound represented by formula (I-3):



wherein ring A² represents a 4- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom an azepane ring; ring B² represents a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains at least one nitrogen atom and may further contain 1 to 3 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom pyrimidine ring; ring A² may be substituted with 1 to 5 of R^a; ring B² may be substituted with 1 to 5 of R^b; L represents (1) a bond, (2) C1-8 alkylene, C2-8 alkenylene or C2-8 alkynylene, wherein the alkylene, alkenylene and alkynylene each may be substituted with 1 to 5 of R¹⁰, or (3) a C3-8 carbocyclic group which may be substituted with R³.

Q represents (1) NR¹R² wherein R¹ and R² each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with 1 to 5 of R¹⁰, (iii) a C3-8 carbocyclic group which may be substituted with 1 to 5 of R³, or (iv) a 5- to 15-membered heterocyclic group which contains 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R³, or (2) ring C;

ring C represents a 4- to 15-membered heterocyclic group which contains at least one nitrogen atom and may further contain 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R³;

plural R³'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R¹⁰, (2) oxo, or (3) R¹⁰:

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10) CONR¹⁴R¹⁵, (11) SO₂R¹², (12) SOR²², (13) SO₂NR²⁴R²⁵, (14) NR¹⁶SO₂R¹², (15) B(OH)₂, (16) SR¹¹, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

R¹¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen, NR¹⁴R¹⁵, OR²¹, SR²¹, COOR¹³, or ring D, or (iii) ring D;

R¹², R¹³, R¹⁴, R¹⁵ and R¹⁶ each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;

ring D represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom; and

ring D may be substituted with 1 to 5 of the groups selected from the following (1) to (22):

(1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl or alkynyl may be substituted with 1 to 5 of OR²¹, OCOR²², OCOOR²³, NR²⁴R²⁵, NR²⁶COR²², NR²⁶CONR²⁴R²⁵, NR²⁶COOR²³, COOR²³, COR²², CONR²⁴R²⁵, SO₂R²², SOR²², SO₂NR²⁴R²⁵, NR²⁶SO₂R²², B(OH)₂, SR²¹, halogen, nitro or cyano, (2) oxo, (3) OR²¹, (4) OCOR²², (5) OCOOR²³, (6) NR²⁴R²⁵, (7) NR²⁶COR²², (8) NR²⁶CONR²⁴R²⁵, (9) NR²⁶COOR²³, (10) COOR²³, (11) COR²², (12) CONR²⁴R²⁵, (13) SO₂R²², (14) SOR²², (15) SO₂NR²⁴R²⁵, (16) NR²⁶SO₂R²², (17) B(OH)₂, (18) SR²¹, (19) halogen, (20) nitro, (21) cyano or (22) ring E;

R²¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with COR²², NR²⁴R²⁵ or ring E, or (iii) ring E;

R²², R²³, R²⁴, R²⁵ and R²⁶ each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring E, or (iii) ring E;

ring E represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5- to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom, and

ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxyl, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring A^A may be substituted with 1-5 of R^a;

ring B^A may be substituted with 1-5 of R^b;

R^a and R^b each independently represents a group which has the same meaning as the group represented by R³ and R^a, R^b and other symbols have the same meanings as those described in claim 7,

or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

20.-22. (canceled).

23. (currently amended): A CXCR4 regulating agentantagonist, which comprises the compound represented by formula (I-B) according to claim 8, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

24.-27. (canceled).

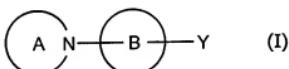
28. (currently amended): A medicament which comprises the compound according to any one of claims 1, 7-8 and 17, or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof, in combination with one or at least two of a reverse transferase inhibitor, a protease inhibitor, a CCR2 antagonist, a CCR3 antagonist, a CCR4 antagonist, a CCR5 antagonist, a fusion inhibitor, an antibody against a surface antigen of HIV-1, and a vaccine of HIV-1.

29. (Original) The medicament according to claim 28, wherein the reverse transferase inhibitor is one or at least two selected from zidovudine, didanosine, zalcitabine, stavudine, lamivudine, abacavir, adefovir, dipivoxil, emtricitabine, tenofovir, nevirapine, nevirapine, efavirenz and capravirine.

30. (Original) The medicament according to claim 28, wherein the protease inhibitor is one or at least two selected from indinavir, ritonavir, nelfinavir, saquinavir, amprenavir, lopinavir and lopinavir.

31.-32. (canceled).

33. (currently amended): A method for preventing and/or treating human immunodeficiency virus infection, which comprises administering to a subject in need thereof an effective amount of a compound represented by formula (I):



wherein ring A represents an azepane ring which may have a substituent(s); ring B represents a pyrimidine ring which may have a substituent(s); and Y represents



wherein G represents a bond or a spacer containing 1 to 3 atoms as a main chain; ring J represents a 4- to 7-membered nitrogen-containing heterocyclic group which may have a

substituent(s); and W represents hydrogen, a hydrocarbon group which may have a substituent(s)
or a heterocyclic group which may have a substituent(s) wherein all symbols have the same
meanings as those described in claim 1,
or a salt thereof, an N-oxide thereof, a solvate thereof, or a prodrug thereof.

34. (canceled).